



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/812,225	03/19/2001	John Malitzis	09857-057001	9467
26161	7590	01/09/2006	EXAMINER	
FISH & RICHARDSON PC P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			HARBECK, TIMOTHY M	
			ART UNIT	PAPER NUMBER
			3628	

DATE MAILED: 01/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/812,225	Applicant(s) MALITZIS ET AL.	
	Examiner Timothy M. Harbeck	Art Unit 3628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-30 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification fails to properly define what an "odd-exposure limit" is.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The specification fails to properly define what an "odd-exposure limit" is.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent

Art Unit: 3628

granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 4, 7-10, are rejected under 35 U.S.C. 102(e) as being anticipated by Samukawa et al (hereinafter Samukawa US 2002/0023043 A1).

Re Claim 1: Samukawa discloses a system and method for supporting odd lot trading comprising the steps of:

- Determining in a computer system whether an odd lot exposure limit has been exceeded for a quoting market participant (Page 1, paragraph 0005; Figure 2 Ref S9)
- Routing a received odd-lot order for execution or delivery to a quoting market participant whose odd-lot exposure limit has not been exceeded and which is sufficient to satisfy execution of the order (Page 1, paragraph 0005; Figure 2 Ref S11, S13)

Re Claim 2: Samukawa discloses the claimed method supra and further discloses the step of determining whether an interval delay between executions of odd-lots by a specified quoting market participant has been exceeded before routing a subsequently received odd-lot order for execution to the specified quoting market participant (Page 3, Paragraphs 0032-0034; timing t1).

Re Claim 4: Samukawa discloses the claimed method supra and further discloses the step wherein the electronic market maintains a displayable quote size for the quoting market participant for the security traded in the market (See Figure 8 Ref 801 "Volume" and Figure 9 Ref 901 "Volume").

Re Claim 7: Samukawa discloses the claimed method supra and further discloses wherein the odd-lot exposure limit is specified for the security for each quoting market participant (See Figure 2 Ref S9; threshold value).

Re Claim 8: Samukawa discloses the claimed method supra and further discloses wherein routing a received odd-lot order occurs in an odd-lot execution manager that is a separate mechanism for processing and executing orders and distinct from a mechanism for processing normal units of trading. Samukawa shows a separate and distinct “odd lot broker system” and a “Securities exchange system” in Figure 2, and further notes that the round lot stock ordering unit forwards non odd lot orders (i.e. normal orders) to the separate securities exchange system (Page 2, paragraph 0023).

Re Claim 9: Samukawa discloses the claimed method supra and further discloses establishing an odd-lot order routing parameter of a predetermined number of orders per firm (Figure 2, Step S7; order insufficiency “m”)

Re Claim 10: Samukawa discloses the claimed method supra and further discloses the step wherein to determine the next available quoting market participant, the process retrieves the next quoting market participants odd-lot exposure limit and determines whether the next quoting market participant has a remaining odd-lot exposure limit that can satisfy the order (Figure 2 Steps S17-S21; “establish exposure limit then provide stocks to each odd lot buying order”).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 5, 6 and 11-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Samukawa

Re Claim 3: Samukawa discloses the claimed method supra but does not explicitly disclose the step of decrementing the odd-lot exposure limit for the quoting market participant against which the received odd-lot order was executed or delivered upon execution or delivery of the received odd-lot order. However, as is shown in Steps S9-S15 in Figure 2, Samukawa is directly concerned with the odd-lot exposure of a participant, and works through an iterative process with the ideal goal of reaching a "buying order insufficiency" of zero for odd lots. In this manner, the system must have a way to constantly decrement the odd-lot exposure information of a participant once certain orders are executed, or else this limit would never approach zero, but instead would continue to rise with each new order. It would have been obvious to anyone skilled in the ordinary art at the time of invention to include the counting feature to the Samukawa disclosure, so an up to date and accurate depiction of odd-lot exposure can be determined.

Re Claim 5: Samukawa discloses the claimed method supra but does not disclose the step wherein the displayable quote size for the quoting market participant in

Art Unit: 3628

the security is not decremented in response to the quoting market participant satisfying the odd lot order. However, in Figure 1 of Samukawa it is evident that the "round lot stock-ordering unit" (33) is separate and distinct from the odd lot broker system.

Furthermore, the goal of the Samukawa system is to drive the odd-lot exposure to zero (S15). It would be obvious then, to anyone skilled in the ordinary art, to not decrement the displayable quote size of a security in response to the execution of an odd lot order because the intended use of the system is to have these operations separate from one another.

Re Claim 6: Samukawa discloses the claimed method supra and while not explicitly disclosing the step wherein the odd-lot order becomes executable when the price of the odd-lot order is at the best price in the market, this step would have been obvious to anyone skilled in the ordinary art in order to maximize the profit of the participant. If the order were executed before reaching the best price in the market, the participant would lose out on revenue and possibly lose money in the transaction.

Re Claim 11: Samukawa discloses the claimed method supra but does not explicitly disclose the step of suspending processing of odd-lot orders for the security if the process determines that all exposure limits for all quoting market participants have been exceeded. However this step would have been obvious to anyone skilled in the ordinary art since the objective of the Samukawa system is to limit exposure of participants to odd-lot transactions. If odd lot processing were allowed to continue, even if all participants exposure limit had been exceeded, then certain participants will

Art Unit: 3628

continue to move further away from their threshold, which would teach away from the intended purpose.

Re Claim 12: Samukawa discloses the claimed method supra but does not explicitly disclose wherein the process remains suspended until a market maker refreshes its odd lot exposure limit. However, as was noted in the preceding rejection of Claim 11, if odd lot processing were not suspended when all participants exposure limits have been exceeding, the system of Samukawa would fail. Along those same lines, unless certain variables regarding the exposure limit (i.e. an increase in this variable) were altered, the process should continue to be suspended so as not to further exceed any participant's threshold. It would have been obvious to anyone skilled in the ordinary art at the time of invention to include this feature to the disclosure of Samukawa so as not to render the system inoperable.

Re Claim 13: Samukawa discloses the claimed method supra and, as applicant notes in the background section of his own disclosure that "customer orders are entered by broker/dealers or equivalents and traded against other orders or quotes that are displayed by market makers or electronic commerce networks (ECN's)." It therefore would have been obvious to anyone skilled in the ordinary art at the time of invention to include the fact that the quoting market participant is a market maker or auto execution electronic commerce network or an electronic commerce network that takes deliveries of orders to the disclosure of Samukawa since, as was established by applicant, these things were known at the time of invention.

Re Claim 14: Samukawa discloses the claimed method supra and further but does not explicitly disclose the step of decrementing the exposure limit for the market maker, upon execution of the order and placing the maker at the bottom of a queue. However, as is shown in Steps S9-S15 in Figure 2, Samukawa is directly concerned with the odd-lot exposure of a participant, and works through an iterative process with the ideal goal of reaching a “buying order insufficiency” of zero for odd lots. In this manner, the system must have a way to constantly decrement the odd-lot exposure information of a participant once certain orders are executed, or else this limit would never approach zero, but instead would continue to rise with each new order. It would have been obvious to anyone skilled in the ordinary art at the time of invention to include the counting feature to the Samukawa disclosure, so an up to date and accurate depiction of odd-lot exposure can be determined. Furthermore, Samukawa discloses placing the market makers at the bottom of a queue (See Fig 2; S21 “buying order.”

Re Claim 15: Samukawa discloses the claimed method supra and further discloses the step wherein the process executes an odd-lot order against a market maker if the market maker has sufficient exposure limit to fill the odd lot order (See Figure 2, steps S17- yes - S19).

Re Claim 16: Samukawa discloses the claimed method supra and further discloses the step of executing for an odd lot portion using a separate mechanism from the mechanism that executes a round lot portion. Samukawa shows a separate and distinct “odd lot broker system” and a “Securities exchange system” in Figure 2, and further notes that the round lot stock ordering unit forwards non odd lot orders (i.e.

Art Unit: 3628

normal orders of round lots) to the separate securities exchange system (Page 2, paragraph 0023). Samukawa does not explicitly disclose determining if an order is a mixed lot order, however it would have been obvious to conclude that the system has a way to determine if the order is a “mixed lot” since round lots and odd lots are forwarded to different places.

Re Claim 17: Samukawa discloses the claimed method supra but does not explicitly disclose wherein the odd-lot portion is executed at the round-lot price against the next quoting market participant in rotation even if the round-lot price is no longer the best price in the market. However this step would have been obvious to anyone skilled in the ordinary art so that the mixed lot order is not executed at two different prices. Since the round lot order can be executed more efficiently than the odd lot order, it is conceivable that the market price could change before the odd lot order is filled. In order to maintain a level of consistency, it would be obvious to execute the odd lot order at the round lot price.

Re Claim 18: Samukawa discloses the claimed method supra and further discloses

- Aggregating a number of odd lot executions for a particular security to produce an aggregate round lot execution comprised of odd-lot executions (Figure 2, steps S7-S11) and;

Samukawa does not explicitly disclose the step of

- Decrementing an Quote/Order size upon execution of the aggregate round lot execution, when the number of odd lots executed equals a round lot

However, this step would be obvious so as to maintain the accuracy of the quote and order system. If the quote/order size is not decreased once a trade is executed, users of the system will see an inaccurate volume of securities on the system since at least a part of that volume is not longer available.

Re Claims 19-25: Further electronic market claims would have been obvious in order to perform previously rejected method claims 1-5, 11 and 12 respectively and are therefore rejected using the same art and rationale.

Re Claims 26-30: Further electronic market claims would have been obvious in order to perform previously rejected method claims 1-3, 5 and 11 respectively and are therefore rejected using the same art and rationale.

Response to Arguments

Applicant's arguments with respect to claims 1-26 have been considered but are moot in view of the new ground(s) of rejection. Examiner has decided to maintain the previous 35 U.S.C. 112 rejections with regards to the definition of an "odd lot exposure limit." Applicant has directed the examiner to page 15, lines 4-19, however this portion of the specification still does not sufficiently define an "odd lot exposure limit." The passage states that the "execution manager accesses the "odd lot exposure limit" parameter that is maintained for market makers." While it is true the term is referenced, it is never once defined how this "parameter" is determined and, more specifically what this parameter is (i.e. exposure to what, what quantity ect), to the point where it would


enable one skilled in the ordinary art to make use of the invention. Therefore this aspect of the rejection is maintained.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy M. Harbeck whose telephone number is 571-272-8123. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hyung S. Sough can be reached on 571-272-6799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


HYUNG SOUGH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600